



**PROTECT  
PROTECT**



**ECO  
POWER**



- ***Protecting your fleet and Equipment with Sustainable EcoPower; a re-refined lubricant brand made by Safety-Kleen in East Chicago, Indiana at the World's largest re-refinery.***



## Presenter:

- Ted Warner
- Strategic Account Executive, Safety-Kleen
- REHS and CHMM
- La Porte, Indiana



- Former Indiana Employee, Indiana State Board of Health and Indiana Department of Environmental Management 1973 – 1991
- 1991 Started with Safety-Kleen to prepare the environmental permits to operate the East Chicago, Indiana re-refinery.



**Safety-Kleen Systems, Inc. has a current Quantity Purchase Agreement with the State of Indiana (QPA)**

- For Re-refined Oil, Antifreeze and Hydraulic Oil
- Non Governmental Entities: Safety-Kleen agreed to extend the pricing terms of the QPA to non-governmental entities (universities, cities, towns, counties, municipalites and quasi-agencies)
- QPA contact Information:

**Vendor Manager: Adam French**

**Phone (317) 234-6906**

**E-mail: [afrench@idoa.in.gov](mailto:afrench@idoa.in.gov)**





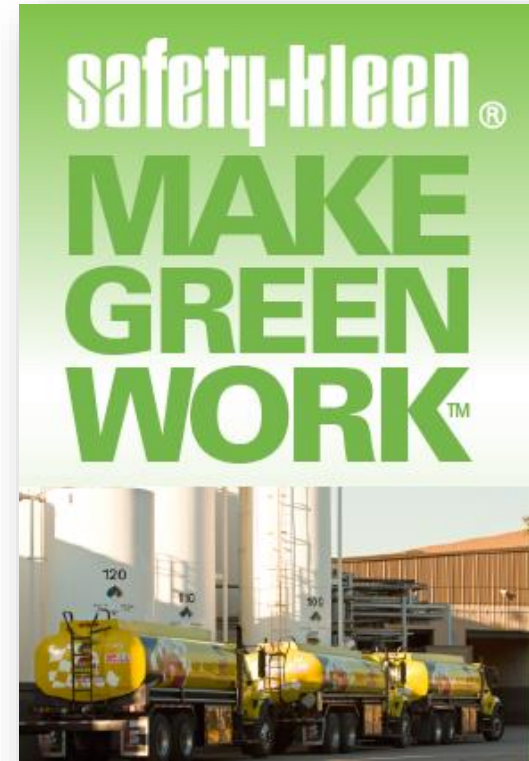
**When it comes to protecting your engine  
and the planet, EcoPower is A Change for  
the Better**

**ECO  
POWER®**

# Recycle with Safety-Kleen.

Safety-Kleen is North America's leader in  
closed-loop environmental solutions.  
Our protection, choices and people  
maximize value and sustainability for our  
customers, communities and shareholders.

We Make Green Work.



**ECO  
POWER**

# PROTECT

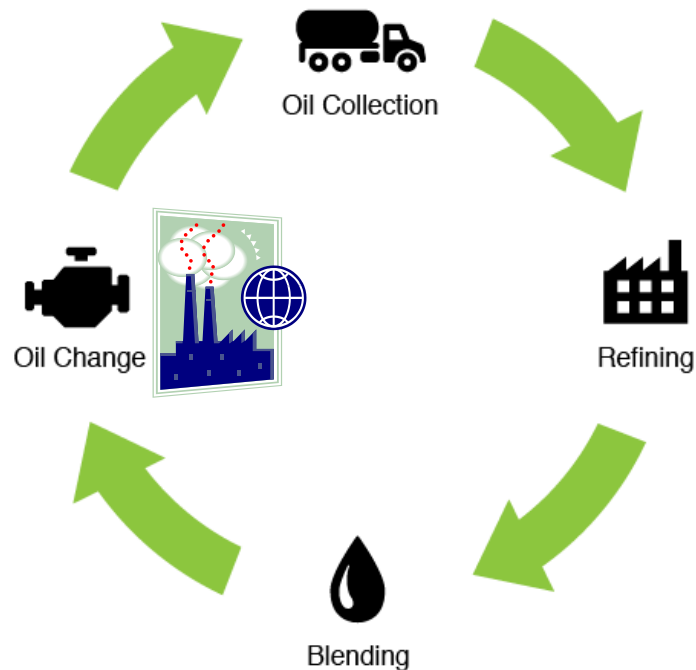


*EcoPower is part of a larger recycling process*

- Oil is a sustainable resource.
  - If you burn used oil as a fuel source for its thermal value, it's effective use is over.
  - If you recycle the used oil into new oil products, it becomes a sustainable resource that can be re-refined over and over and over again.

**ECO  
POWER**

# RECYCLE



*EcoPower is recycled and refined from reclaimed motor and industrial oil.*

- Safety-Kleen, the largest collector and re-refiner in North America, reclaims over 200 million gallons of used oil annually
  - In our closed-loop system, used oil is collected, re-refined, blended and redistributed as EcoPower.
  - This cycle can be repeated indefinitely, saving resources.

**ECO  
POWER**



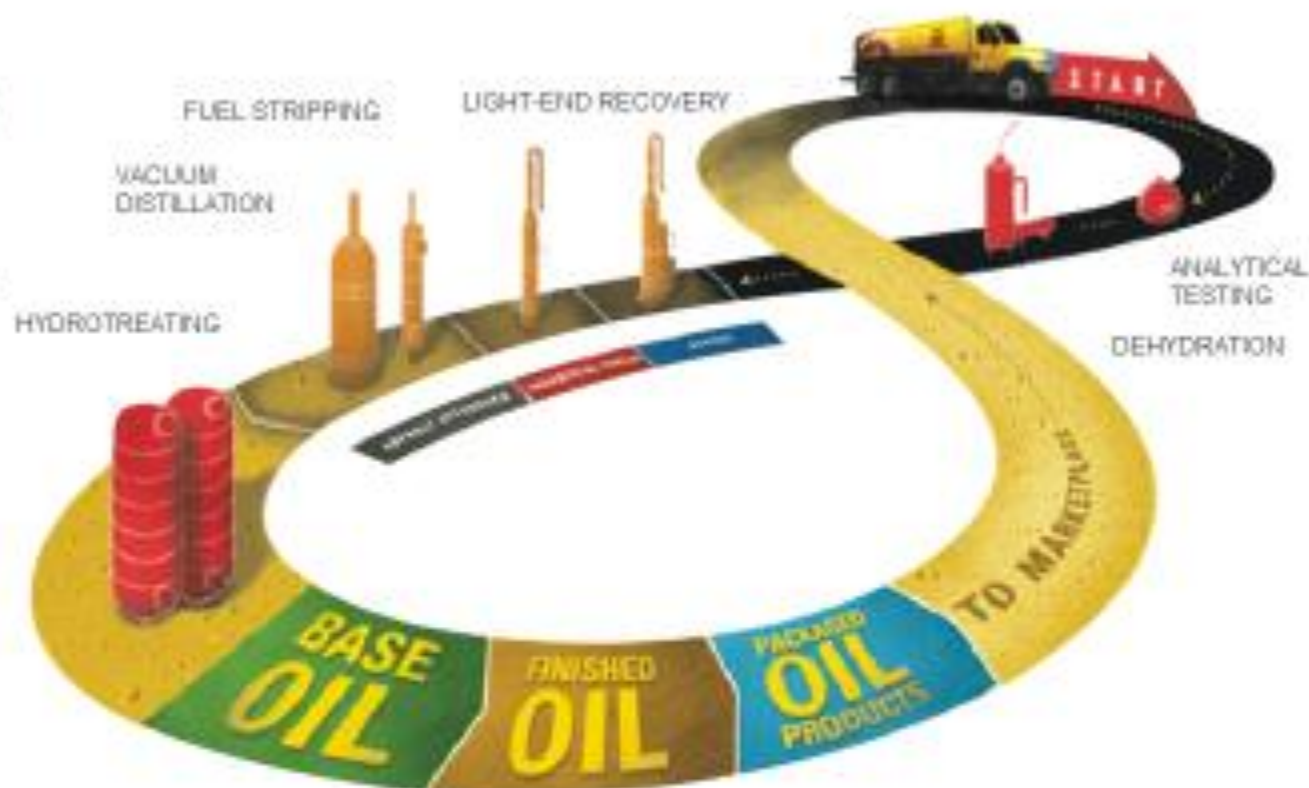
# Safety-Kleen's Oil "Closed Loop" of Services and Products

## Largest Collection Network

- 550+ oil collection trucks, 25 oil terminals, 8 barges and over 2,000 rail cars
- Over 220 million gallons of used oil collected
- 20% of used oil market
- Variety of automotive and industrial customers

## Marketplace Products

- Produced and sold over 125 million gallons of base and blended lubricating oils
- 62 million gallons of reprocessed fuel oil (RFO)



**ECO  
POWER**

# Protect your fleet.

*Highest quality re-refined/recycled base oils*

Our re-refining process produces recycled base oils with exceptional purity and lubricating properties that are equal to or better than base oils from virgin crude

**Virgin and re-refined – no difference.**



**ECO  
POWER**

# Highest Quality Base Oils

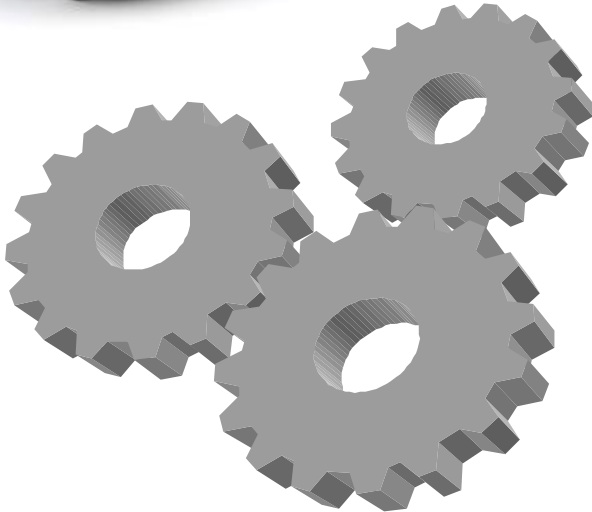
*Being the largest re-refiner in the world provides benefits...*

- Excellent feedstock due to ever-increasing amounts of Group III oil
- Our feedstock is better and more consistent than crude
- Low NOACK and superior Viscosity Index in our base oils produce premium engine oils
- Group II+ base oil quality
- Lab testing for all feedstock, base and blended products
- ISO 9001 standards for quality and consistency
- 30+ years of re-refining experience



**ECO  
POWER**

# Protect your fleet and equipment with EcoPower Engine and Industrial Lubricants.



*EcoPower can protect your fleet and equipment by:*

- Providing superior corrosion-bearing wear protection
- Optimizing defense against piston deposits, catalyst poisoning and oxidative thickening
- Lowering overall maintenance costs
- Increasing equipment availability

**ECO  
POWER**



# Protect your fleet.



*Tested for millions of miles in the most demanding conditions imaginable*

- Large commercial and heavy duty truck fleets and passenger car rental
- State trooper and other state-owned emergency vehicles
- U.S. Military vehicles around the world



Manheim



U.S. AIR FORCE



Preventive Maintenance Pros



ENTERPRISE HOLDINGS.



A CHANGE FOR THE BETTER.

# PROTECT



*Two trucks.  
1,000,000 miles each.  
Using nothing but EcoPower  
Engine Oil.*

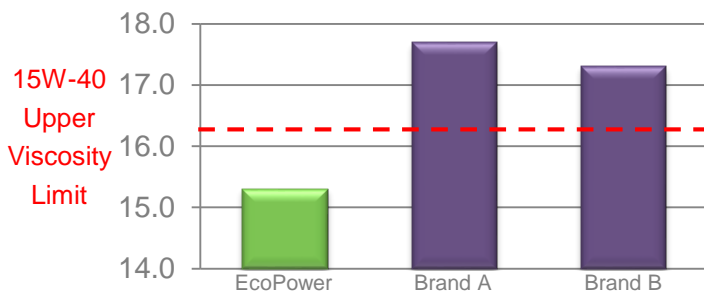
In an independent **1,000,000**-mile engine test conducted on two trucks under extended drain intervals of more than 40,000 miles, EcoPower HD 15W-40 API CJ-4/SM showed exceptional engine protection – so exceptional that vital engine parts were reused when the 2007 Cummins ISX engines were rebuilt.

**ECO  
POWER**

# Protect your fleet.

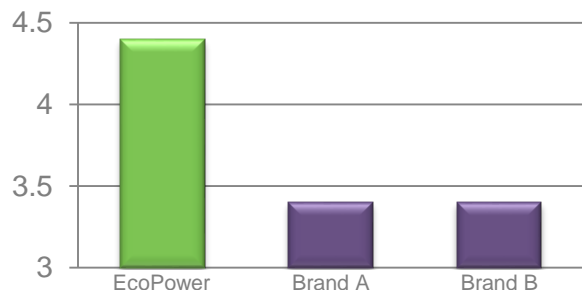
## First, EcoPower was tested and compared for a half-million miles

*After 500,000 miles, EcoPower HD 15W-40 API CJ-4/SM was as good as or better than two leading premium HD oils made from crude.*



### Superior viscosity maintenance

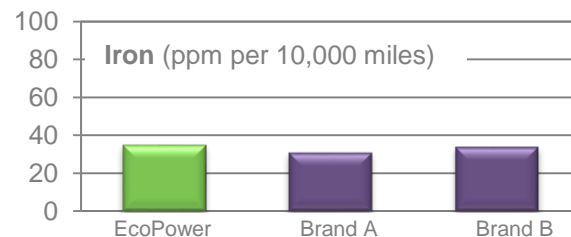
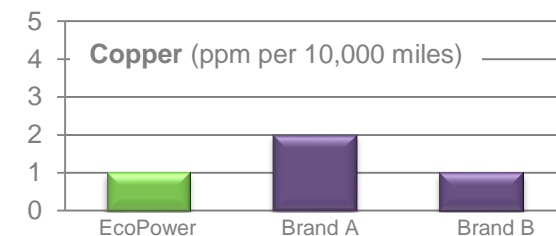
EcoPower maintains 15W-40 API CJ-4 viscosity grade characteristics (12.5 to 16.3 cSt), even after 500,000 miles and 40,000+-mile oil change intervals.



### Superior total base number retention

EcoPower possesses acid neutralization capability, even after 40,000+ miles of service.

## Outstanding wear metal protection



**ECO  
POWER**

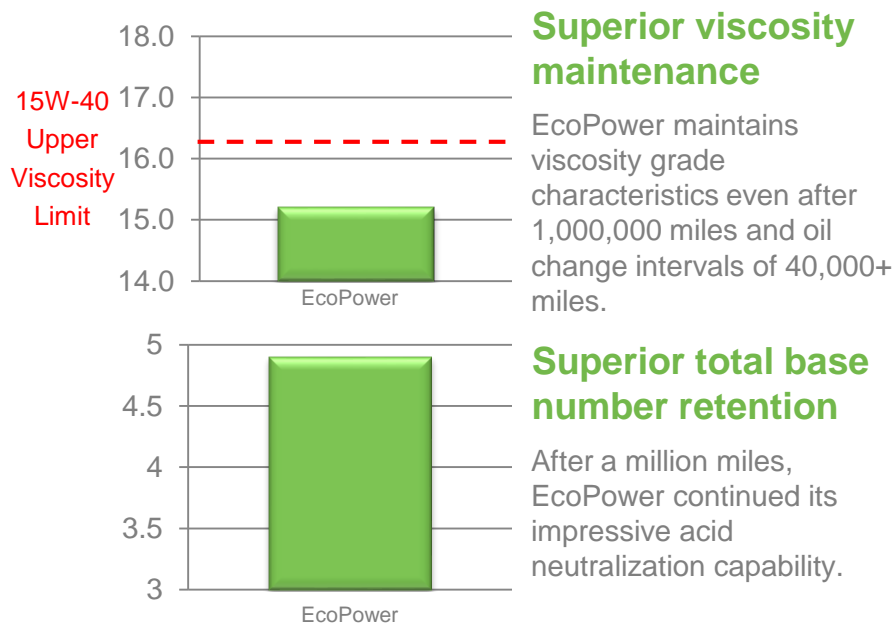
Oil change interval: 40,000+ miles  
Test conducted by Infineum International LTD, a major global additive company.

# Protect your fleet.

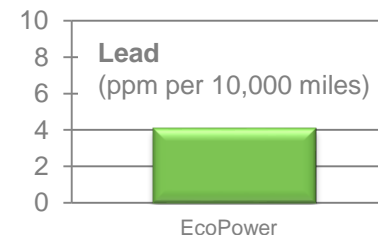
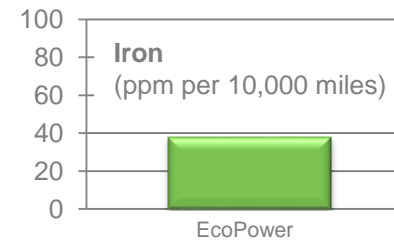
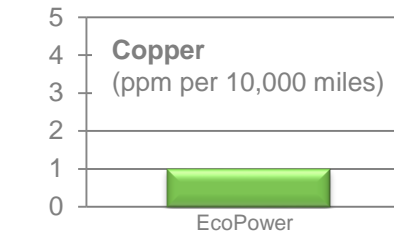
## After a million miles...

### EcoPower delivered superior performance

After **1,000,000** miles with drain intervals at over 40,000 miles, EcoPower HD 15W-40 API CJ-4/SM delivered engine protection and cleanliness second to none!



Oil change interval: 40,000+ miles  
Test conducted by Infineum International LTD, a major global additive company.



### Outstanding wear metal protection

Little engine wear – crankshaft, fuel injector camshaft, valve break camshaft, rocker assemblies and connecting rods were used to rebuild engine.

# ECO POWER



# Protect your fleet.

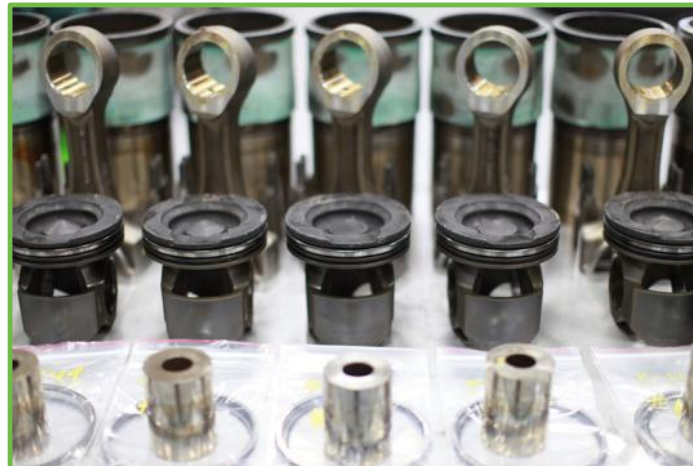
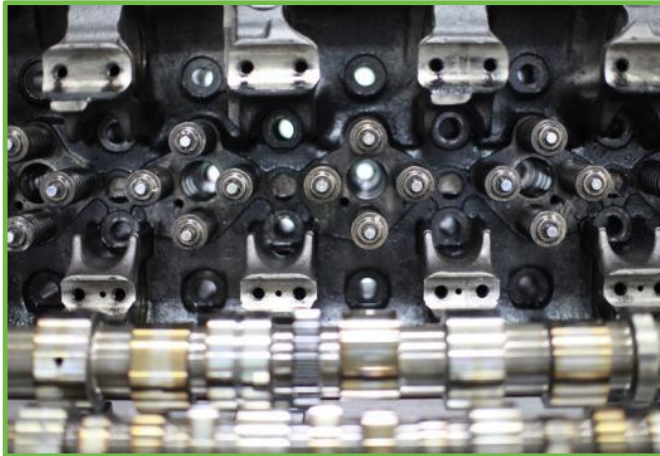
## Pertinent operating conditions and results

<b>Tractor:</b>	2008 Peterbilt tandem axle (two units)
<b>Engine:</b>	2007 Cummins ISX 15ltr, 450HP @ 1800rpm with EGR and DPF, built 02/08
<b>Transmission:</b>	Eaton Fuller FRO 16210C 10-speed manual
<b>Final drive:</b>	Meritor RT 40-145 Ratio 3.42:1
<b>Service:</b>	Line haul fully loaded with team drivers
<b>GVW:</b>	80,000-lb tractor and trailer
<b>Mileage:</b>	1,052,093 and 1,070,137
<b>Average speed:</b>	42.5 mph
<b>Average engine speed:</b>	1,191 rpm
<b>Idle time:</b>	29%
<b>Engine oil:</b>	EcoPower Heavy-Duty 15W-40 API CJ-4/SM
<b>Average oil-change interval:</b>	42,342 miles
<b>Average fuel consumption:</b>	6.35 mpg
<b>Average CRC sludge rating:</b> (10.0 being new part rating)	9.36



# Protect your fleet.

## Million-Mile Engine photos



**ECO  
POWER**

# Protect your fleet.



*EcoPower Heavy Duty Diesel Engine Oil exceeds all North American standards for engine oil performance, including API, SAE, and military specifications*

*Meets OEM specs for Caterpillar, Cummins, Mack, Detroit Diesel, Mercedes-Benz, and others*

**ECO  
POWER**

# Protect



## Product Licenses, Approval and Conformance Documents

- *API Schedule A License Agreement*
- *API Schedule A License Agreement – Canada*
- *Dexos Certificate of License 2013*
- *Dexos License Agreement*
- *Detroit Diesel Approval Letter for EcoPower 15W-40*
- *Detroit Diesel Approval Letter for EcoPower 10W-30*
- *Cummins CES20081 Conformance Letter for EcoPower 15W-40*
- *Cummins CES20081 Conformance Letter for EcoPower 10W-30*
- *Mack E0-0 Premium Plus+Volvo VDS-4 Approval Letter for EcoPower*
- *TC-W3 Certified Oil Registration Program 2012*
- *Volvo Approval Letter for 10W-30*
- *Allison Transmission Approval Letter - 2281540*
- *Allison Transmission Approval Letter – 22915MH*

**ECO  
POWER**

\*It is formally approved for use in natural gas engines with OEM specifications Cummins CES 20074 and Detroit Diesel PGOS 93K216.



# Protect our planet.



*Reduce Greenhouse Gas emissions by 7,668 metric ton for every million gallons of EcoPower used.*

*That's equal to carbon sequestered by growing 198,725 trees for 10 years in an urban environment.*

**ECO  
POWER**

# Protect our planet.

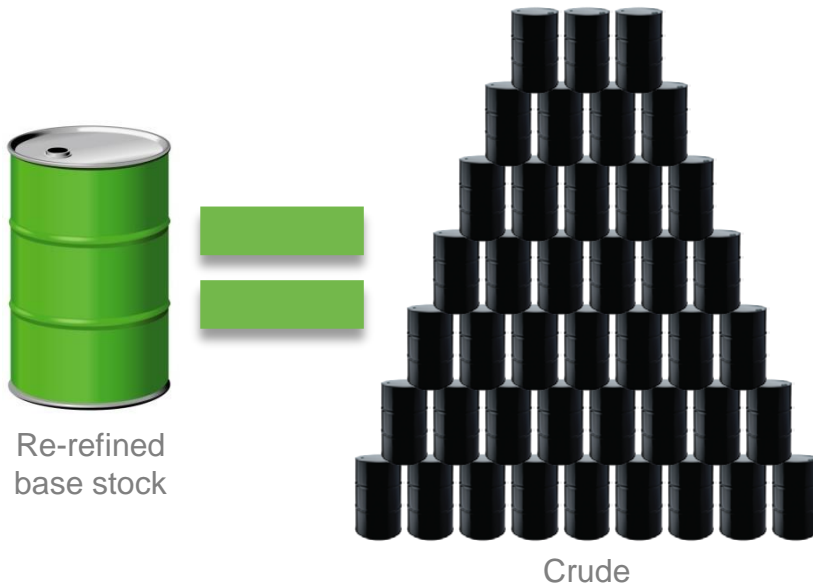


*EcoPower uses up to 85% less energy to produce.*

- Once you refine the impurities out, used oil returns to its original base oil state.
- Because it has already been refined once, it takes a great deal less energy to re-refine it.

**ECO  
POWER**

# Protect our planet.



*EcoPower reduces our dependence on foreign oil.*

- It takes 42 barrels of crude oil to refine the same amount of base oil as from one barrel of used motor oil.

**ECO  
POWER**

# Select EcoPower and Safety-Kleen.



*Select EcoPower Engine Oil and Safety-Kleen's oil collection program and become a Certified Green Recycler. Program provides:*

- Framed certificate
- 17x22 inch Wall Poster
- 8x11 inch Window Sticker
- Certified Green Recycler Logo in jpg format for use in newsletters, press releases, etc.

**ECO  
POWER**



# CERTIFICATE OF ENVIRONMENTAL ACHIEVEMENT

**State Of Indiana, 45,294 gallons YTD  
avoided 489 Metric Tons**

**of Greenhouse Gas Emissions (CO<sub>2</sub>e)**

through Safety-Kleen's closed-loop recycling program for used oil  
from January 01, 2015 to July 31, 2015



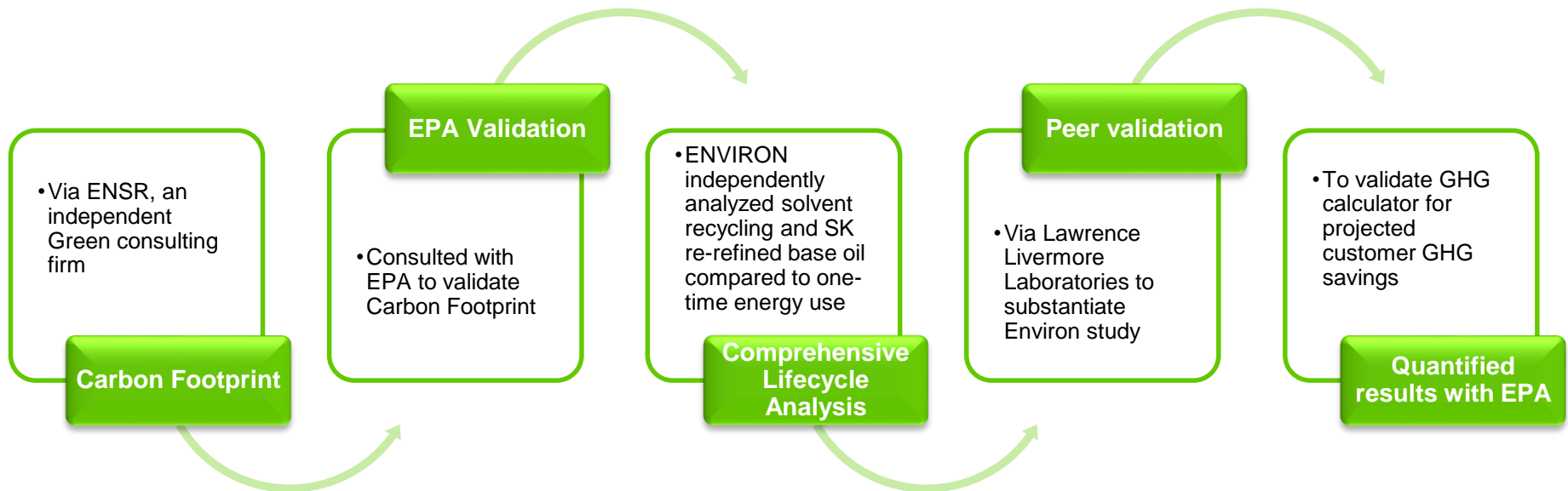
**Based on the EPA Calculator (CO<sub>2</sub>e)\*, this is equivalent to any one of the following:**

- 92,199 therms of natural gas
- 54,848 gallons of gasoline consumed
- Carbon sequestered by 12,678 trees grown for 10 years in an urban environment
- 19,975 propane cylinders used for home barbeques
- 1,138 barrels of oil consumed
- Emissions avoided by recycling 171 tons of waste instead of sending it to the landfill

*Safety-Kleen Carbon Calculator: Greenhouse gases such as carbon dioxide and nitrogen dioxide are created from activities such as producing energy and burning fuel. The Carbon Calculator computes the reduction in greenhouse gases that result from recycling and using Safety-Kleen's products versus not recycling. The Carbon Calculator reports greenhouse gas reductions in metric tons of carbon dioxide equivalent based on the EPA calculator (CO<sub>2</sub>e).*

# QUANTIFYING SUSTAINABLE SOLUTION

*Through a comprehensive lifecycle analysis completed by ENVIRON, an independent third-party, Safety-Kleen can measure direct GHG reductions for our customers*



# SELECT



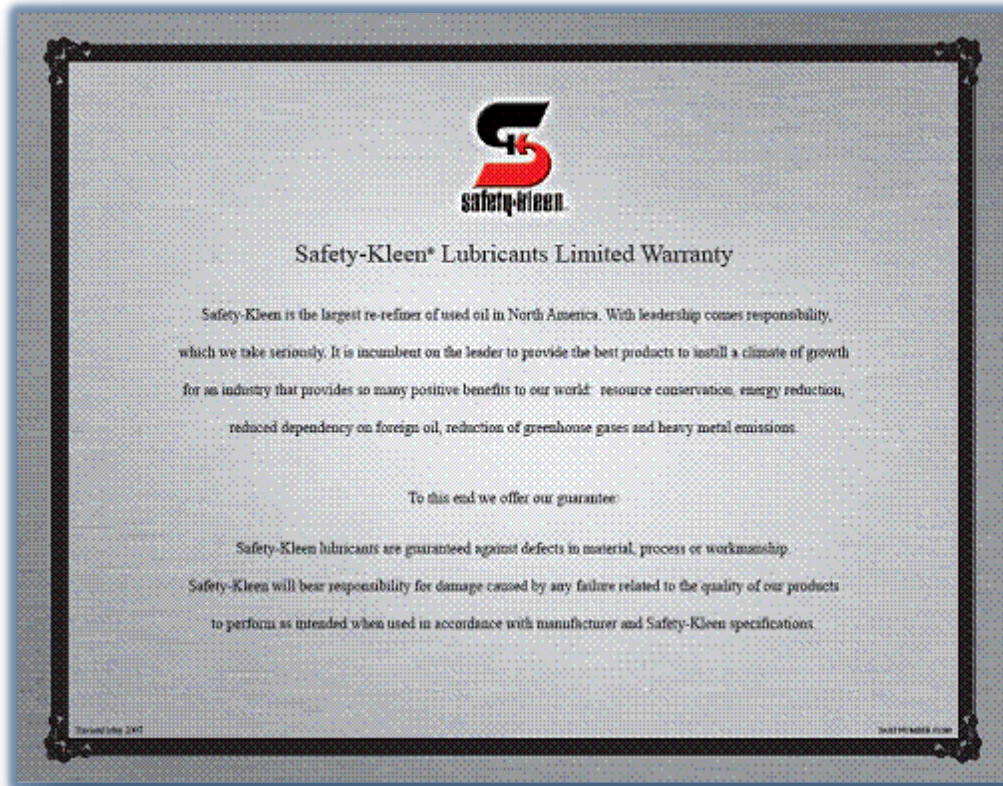
## The EcoPower Family of Products

- Heavy Duty Diesel Engine Oil
  - 15W-40 CJ-4/SM
  - 10W-30 CJ-4/SM
  - NGP-2 15W-40 Natural Gas Engine Oil\*
- Synthetic Blend Passenger Car Motor Oil  
API Service SN/ILSAC GF-5
  - 5W-20, 5W-30 and 10W-30
  - dexos1™ Licensed
    - » dexos1™ Synthetic Blend 5W-30
  - High Mileage 5W-20 and 5W-30
  - EcoPower Anti-Wear Hydraulic Oil
  - EcoPower Automatic Transmission Fluid
  - EcoPower Industrial Gear Oil
  - EcoPower GL-5 Gear Oil
  - EcoPower Low-Temp Anti-Wear Hydraulic Oil
  - EcoPower Zinc-Free Anti-Wear Hydraulic Oil
  - EcoPower Railroad Diesel Engine Oil
  - EcoPower Spindle Oil
  - EcoPower Universal Tractor Fluid
  - EcoPower Way Oils
  - *(Spec Sheets are available for all these products)*

# ECO POWER®

\*It is formally approved for use in natural gas engines with OEM specifications Cummins CES 20074 and Detroit Diesel PGOS 93K216.

# EcoPower Product Guarantee



## ➤ Safety-Kleen fully stands behind EcoPower, and all of our Lubricants

- We will bear responsibility for damage caused by any failure related to the quality of our products to perform as intended when used in accordance with manufacturer specification

**ECO  
POWER**

# EcoPower is simply better:

	Current Supplier	<b>ECO POWER</b>
Protects your fleet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Protects the environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reduces dependence on foreign crude	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reduces your carbon footprint	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Conserves valuable non-renewable resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is it a sustainable product?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does it give you a competitive advantage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does it help you achieve sustainable goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>



# Questions:

**Ted Warner, REHS, CHMM**  
**[ted.warner@safety-kleen.com](mailto:ted.warner@safety-kleen.com)**  
**Office: (219) 362-2837**

